Section 8 Project Effect and Mitigation Recommendations

This AIS represents a good faith effort to identify and document the archaeological cultural resources within the City Center (Section 4). A total of 16 archaeological cultural resources were documented within the City Center project area. An additional two cultural resources were not observed during the current AIS but were in close proximity to the project area corridor and potentially could be affected by project construction and therefore have been included in this discussion. Due to the inherent limitations of any sampling strategy, it is possible that additional archaeological cultural resources or features may be uncovered during the construction of City Center.

8.1 Project Effect

According to historical background research and the results of the current AIS investigation, the City Center corridor contains 18 known archaeological cultural resources and the potential to contain as-yet unidentified archaeological cultural resources. In order to mitigate potential adverse impacts to any archaeological cultural resources within the project area, it is recommended that project construction proceed under appropriate mitigation measures.

In the course of the project's Federal Section 106 historic preservation review process the project has already been determined to have an "adverse effect" on historic properties. The AIS investigation results are in keeping with this federal effect determination because the City Center construction may adversely affect portions of the 18 known cultural resources along the City Center corridor. Under Hawai'i State historic preservation review legislation, the project's effect recommendation is "effect, with proposed mitigation commitments." The recommended mitigation measures for the Section 4 AIS will reduce the project's effect on the identified archaeological cultural resources.

Project construction effects to the 18 known cultural resources may include excavation and removal of portions of these historic subsurface archaeological deposits, for example through utility relocation excavations, guideway column installation, or station construction. The complete areal extents of most of the cultural resources are not known based on AIS testing results, which were confined to the study area/APE; however, based on historic maps and aerial photographs it is clear that many of these cultural resources once extended over a broad area outside of the current City Center archaeological APE.

Based on this historic evidence, it is reasonable to conclude that only small portions of many of the cultural resources documented within the study area were identified. Buried deposits with similar characteristics to those cultural resources already identified likely exist outside of the study area. If this is the case, as seems likely, the project-related effect on most of the cultural resources is quite limited in terms of geographic area. Additionally, proposed mitigation measures (such as archaeological monitoring, data recovery, and burial treatment programs) will provide an opportunity to further document the portions of the 18 known archaeological cultural resources within the City Center APE.

8.2 Mitigation Recommendations

Under Hawai'i State historic preservation review legislation, there are five potential forms of historic preservation mitigation: A) Preservation; B) Architectural Recordation; C) Archaeological Data Recovery (which includes archaeological monitoring); D) Historical Data Recovery; and E) Ethnographic Documentation (HAR Chapter 13-275-8). In order to mitigate potential adverse effects to the 18 known archaeological cultural resources documented within the City Center APE, it is recommended that project construction proceed under archaeological data recovery, archaeological monitoring, and burial treatment programs, beginning with an archaeological data recovery plan (to be reviewed and approved by the City and the SHPD, per HAR Chapter 13-278-3), an archaeological monitoring plan (to be reviewed and approved by the City and the SHPD, per HAR Chapter 13-279-4), and a burial treatment plan (to be reviewed and approved by the City and the SHPD, per HAR Chapter 13-300 and HRS Chapter 6E-43). See Table 48 above, for a list of all 18 cultural resources and their respective mitigation recommendations.

Archaeological monitoring is recommended for all but one of the 18 cultural resources documented during the City Center AIS (SIHP #50-80-14-07193). No mitigation measures are recommended for SIHP #50-80-14-07193 (a buried historic-era trash layer) as this cultural resource has been determined ineligible to the Hawai'i Register and is recommended ineligible to the National Register. Additionally, it is recommended that data recovery be carried out for four cultural resources that contained buried, culturally enriched (in three cases with human skeletal remains) A-horizons (SIHP #50-80-14-07428, #50-80-14-02963, #50-80-14-05820, and #50-80-14-02918). Data recovery will be used to further characterize the nature of these cultural resources and may include additional limited excavation and further analysis of samples already collected. Burial treatment also is recommended for two cultural resources that contained portions of in situ human skeletal remains/burials identified during the current AIS (SIHP #50-80-14-05820 and #50-80-14-02918).

Archaeological data recovery and monitoring are specified in Section III.E of the project's PA as appropriate forms of archaeological cultural resource mitigation. Under Hawai'i State historic preservation legislation, archaeological data recovery refers to "the form of mitigation that archaeologically records or recovers a reasonable and adequate amount of information as determined by the department [the DLNR], from a significant historic property" (HAR Chapter 13-278-2), and archaeological monitoring "may be an identification, mitigation, or post-mitigation contingency measure... [and] shall entail the archaeological observation of, and possible intervention with, on-going activities which may adversely affect historic properties" (HAR Chapter 13-279-3). A combination of on-call and on-site archaeological monitoring is recommended, with the specific locations of each to be worked out in consultation with the SHPD during preparation of the project's City Center archaeological monitoring plan.

Archaeological burial treatment is specified in Section III.D of the PA as an appropriate form of cultural resource treatment. Under Hawai'i State historic preservation legislation, a burial treatment plan "proposes treatment of burial sites, including preservation in place or relocation" (HAR Chapter 13-300).

The archaeological data recovery, monitoring, and burial treatment programs will serve as mitigation measures that facilitate identification, proper documentation, and treatment decisions of the 18 known cultural resources. These programs may provide the opportunity to gather additional information regarding the documented cultural resources through analysis, recordation, and collection of samples. This information may further define the characteristics, function, and geographic extent of the documented cultural resources.

Furthermore, the proposed data recovery, monitoring, and burial treatment programs will serve as mitigation measures that facilitate identification, proper documentation, and treatment decisions should previously unidentified archaeological cultural resources, including human skeletal remains/burials, be encountered. If encountered, and if appropriate, these previously unknown archaeological cultural resources will be treated as "post-review discoveries" under 36 CFR 800.13 and HAR Chapter 13-280 ("Procedures for Inadvertent Discoveries During a Project Covered by the Historic Preservation Review Process"). Inadvertent burial discoveries will follow the procedures outlined in Hawai'i State burial law (HAR Chapter 13-300-40).

8.3 Disposition of Materials

In compliance with the Project's PA, Stipulation III.F "Curation," the City will curate recovered materials in accordance with applicable laws (including HAR Chapter 13-278 and 36 CFR 79). HART is currently developing a curation program and seeking a curation facility that will meet these requirements. Until these curation measures are in place, all collected materials and associated records generated by the City Center AIS fieldwork and subsequent analysis will be temporarily curated either at CSH's temporary field office specific to the City Center AIS or at CSH's main O'ahu office in Waimānalo.